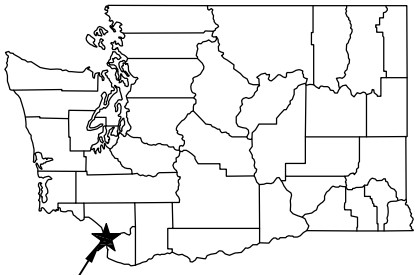
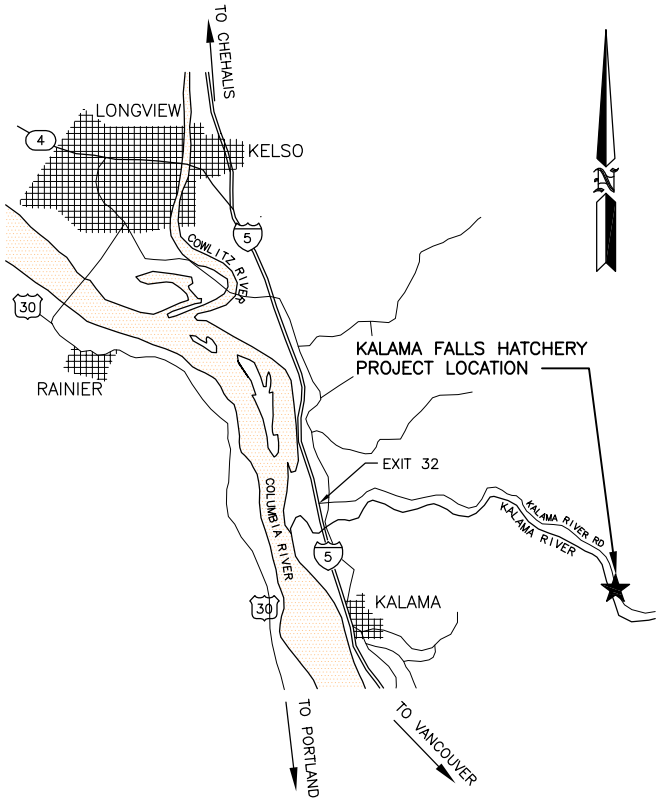
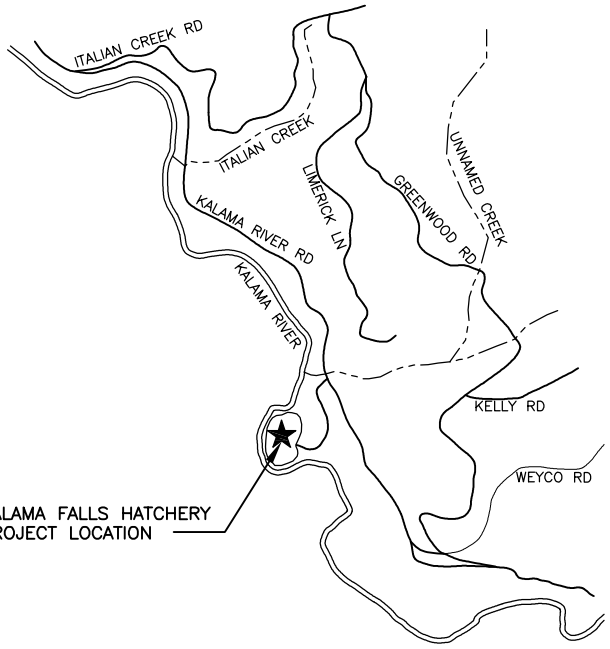


KALAMA FALLS HATCHERY
PROJECT LOCATION





VICINITY MAP
NOT TO SCALE

ENG. PROJECT NO. CZ:H28:11–2

PORTION OF: SEC 7, T6N, R1E

REFERENCE NUMBER:

APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE
600 CAPITOL WAY N.
OLYMPIA, WA 98501–1091

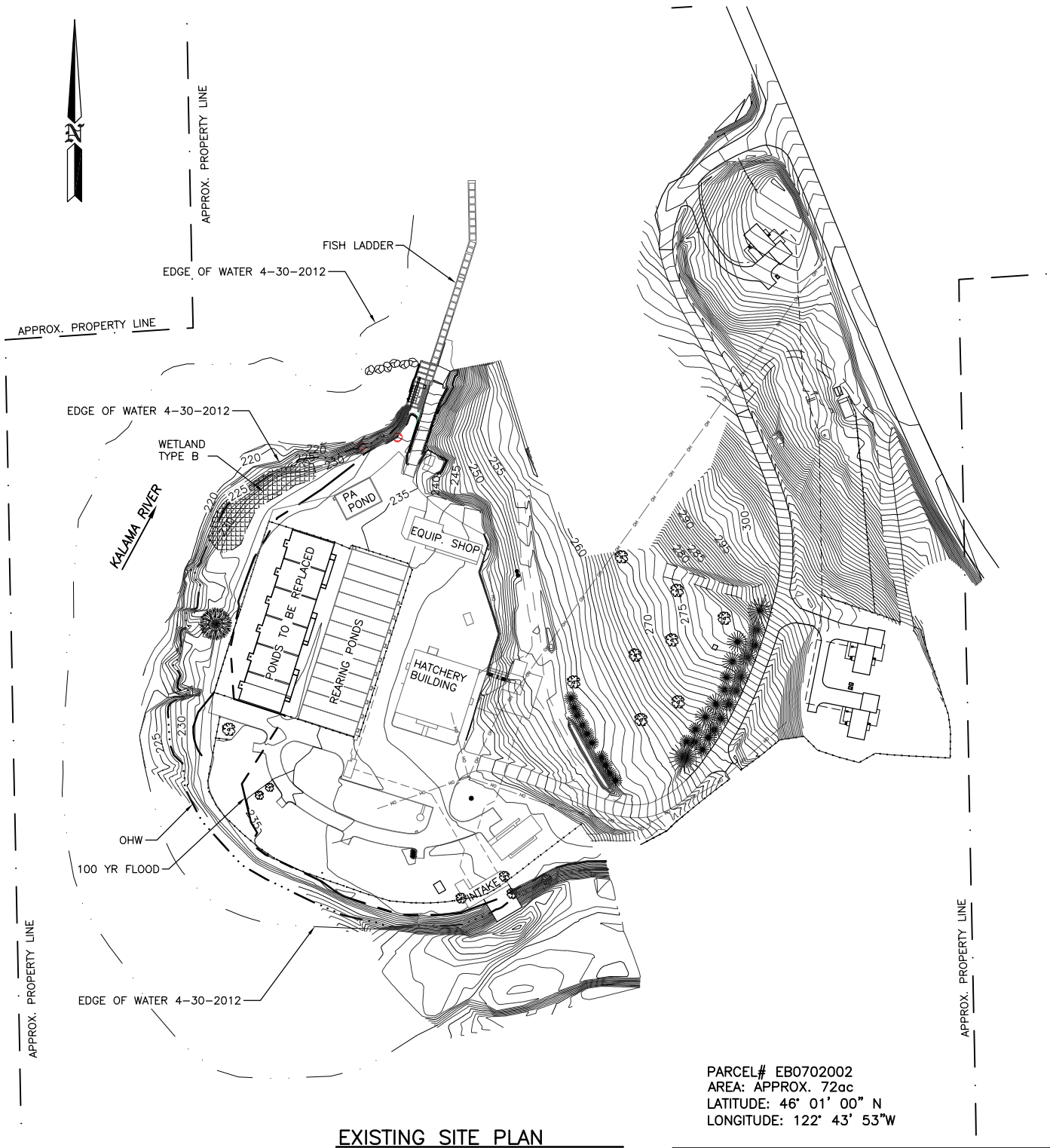
ADJACENT PROPERTY OWNER:
1.
2

PROJECT LOCATION (ADDRESS):
KALAMA FALLS HATCHERY
3900 KALAMA RIVER ROAD
KALAMA, WA

LAT/LONG: 46° 01' 00"N/122° 43' 53"W
DATUM: NAVD 88
SHEET 1 OF 9 DATE: 10/1/2012

PROPOSED PROJECT:
UPDATE BROODSTOCK PONDS

IN: KALAMA RIVER
NEAR/AT: KALAMA
COUNTY: COWLITZ
STATE: WA



PARCEL# EB0702002
AREA: APPROX. 72ac
LATITUDE: 46° 01' 00" N
LONGITUDE: 122° 43' 53"W

EXISTING SITE PLAN
SCALE: 1" = 200'

0 100 200
SCALE: 1" = 200'

REFERENCE NO. _____

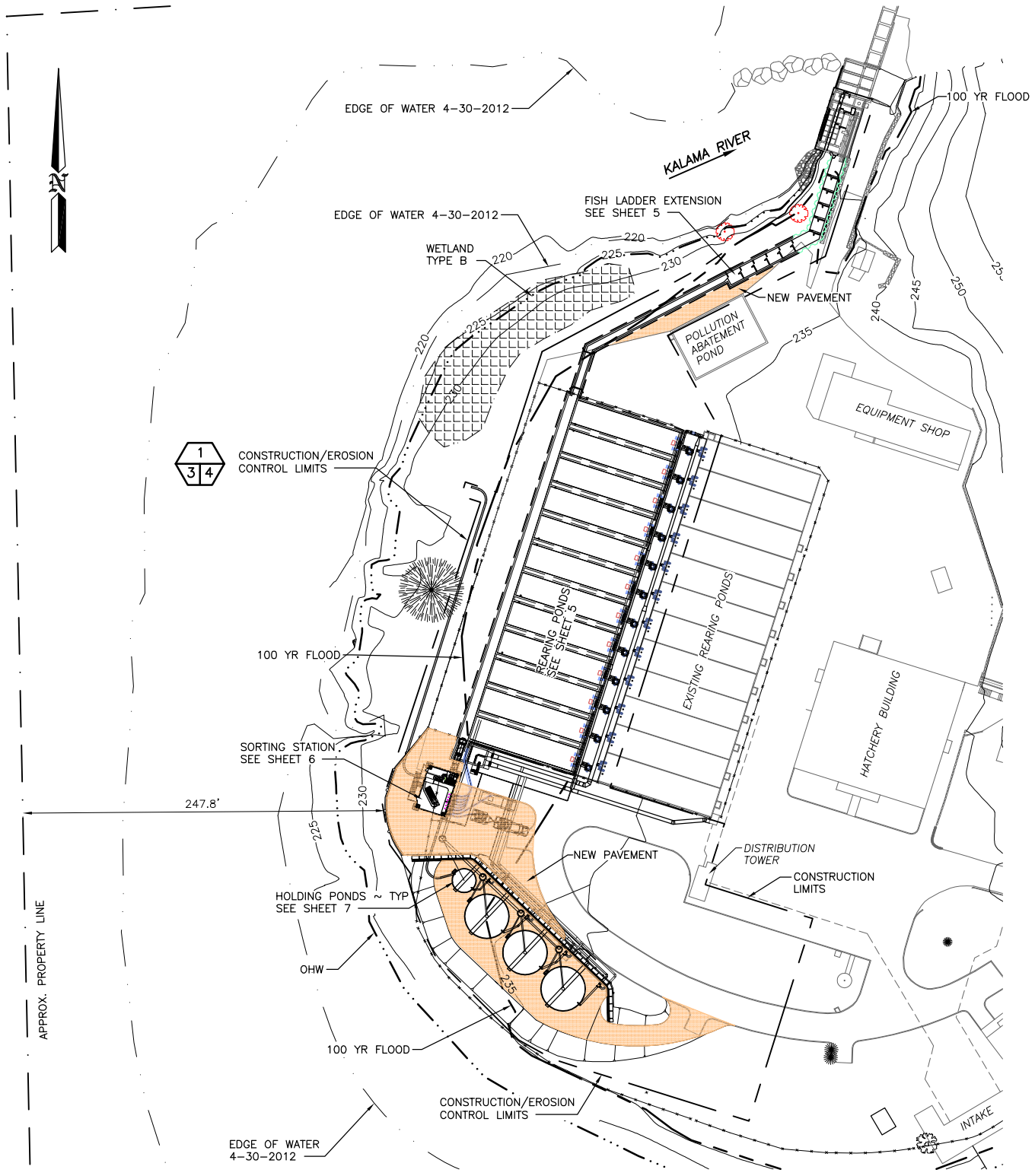
APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
BROODSTOCK MODIFICATIONS
EXISTING SITE PLAN

AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 2 OF 9

ENG. PROJECT NO. CZ:H28:11-2



SITE PLAN

SCALE: 1" = 100'

0 50 100
25 75 150

SCALE: 1" = 100'

REFERENCE NO. _____

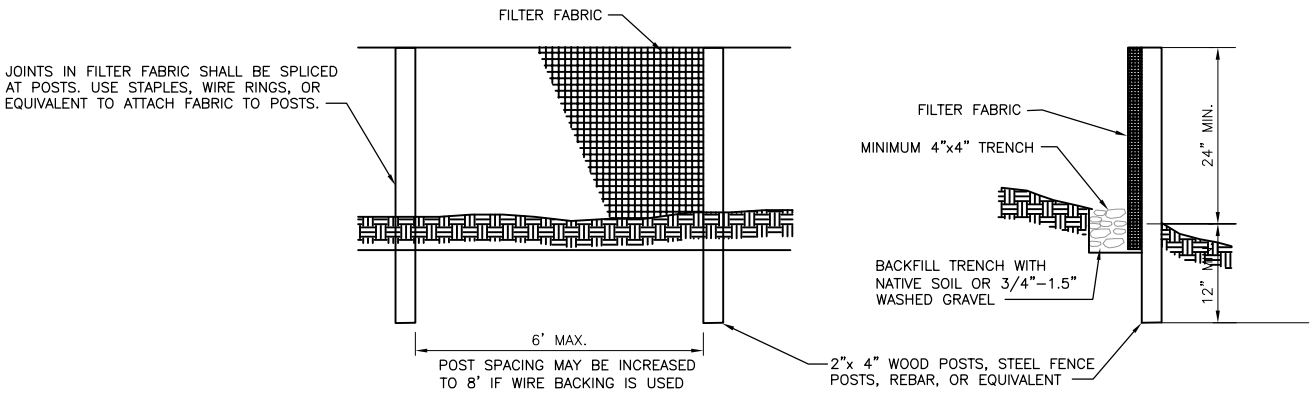
APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
SITE PLAN

AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 3 OF 9

ENG. PROJECT NO. CZ:H28:11-2



NOTES:

1. FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOURS WHENEVER POSSIBLE.
2. FABRIC SHALL BE EQUAL TO "MIRAFI" WITH 100 LB GRAB TENSILE STRENGTH, 200 PSI BURST STRENGTH, AND 70–200 SIEVE # APPARENT OPENING.

EROSION CONTROL BARRIER
NOT TO SCALE

1
3 | 4

TEMPORARY EROSION AN SEDIMENT CONTROL NOTES:

1. IN WATER COFFERDAM CONSTRUCTION WORK ON THE PROJECT SHALL NOT BEGIN UNTIL APRIL 1st AND SHALL BE COMPLETED BY JULY 31st.
2. THE WDFW AREA HABITAT BIOLOGIST ASSIGNED TO THIS PROJECT, SHALL RECEIVE WRITTEN NOTIFICATION (FAX, EMAIL, MAIL) NO LESS THAN THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
3. THE TESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEM, AND ADJACENT PROPERTIES IS MINIMIZED.
4. THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD THESE TESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS
5. THE TESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/TESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE TESC FACILITIES DURING CONSTRUCTION.
6. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAY DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED TESC METHODS (E.G. SEEDING, MULCHING, PLASTIC COVERING. ETC.).
7. THE TESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS OF FOLLOWING A STORM EVENT.
8. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM 2–INCH THICKNESS.
9. THE COFFERDAMS SHALL BE COMPLETELY SEALED TO PREVENT CONCRETE OR OTHER DELETERIOUS PRODUCTS FROM LEACHING INTO THE RIVER. UPON COMPLETION OF THE PROJECT, ALL COFFERDAM MATERIALS SHALL BE REMOVED.
10. ALL WASTE MATERIAL SUCH AS CONSTRUCTION DEBRIS, SILT, EXCESS DIRT OR OVERBURDEN RESULTING FROM THIS PROJECT SHALL BE DEPOSITED ABOVE THE LIMITS OF FLOODWATER IN AN APPROVED UPLAND DISPOSAL SITE.
11. WASTEWATER FROM PROJECT ACTIVITIES AND WATER REMOVED FROM IN THE WORK AREA SHALL BE ROUTED TO AN AREA UPLAND OF THE ORDINARY HIGH WATER LINE TO ALL REMOVAL OF FINE SEDIMENT AND OTHER CONTAMINANTS PRIOR TO DISCHARGE INTO THE RIVER.
12. MAINTENANCE AND FUELING OF CONSTRUCTION EQUIPMENT SHALL BE PERFORMED IN SUCH A MANNER TO MINIMIZE THE POTENTIAL CONTAMINATION OF STORM WATER RUNOFF AND ADJACENT WATERWAYS. SPILL CONTAINMENT AND CLEANUP KITS SHALL BE MAINTAINED ONSITE AND ANY SPILLS OF FUELS, HYDRAULIC FLUID, LUBRICANTS, OR OTHER HAZARDOUS MATERIAL SHALL BE CLEANED UP AND IMMEDIATELY AND PROPERLY DISPOSED OF.
13. EQUIPMENT USED FOR THIS PROJECT SHALL BE FREE OF EXTERNAL PETROLEUM–BASED PRODUCTS WHILE WORKING NEAR THE RIVER. ACCUMULATION OF SOIL AND DEBRIS SHALL BE REMOVED FROM THE DRIVE MECHANISMS AND THE UNDERCARRIAGE OF EQUIPMENT PRIOR TO ITS WORKING INSIDE THE COFFERDAMS. EQUIPMENT SHALL BE CHECKED DAILY FOR LEAKS AND ANY NECESSARY REPAIRS SHALL BE COMPLETED PRIOR TO COMMENCING WORK ACTIVITIES NEAR THE RIVER.
14. EXCAVATION EQUIPMENT WILL WORK FROM ABOVE THE EXCAVATION AND DIG UP SLOPE TOWARDS THEM. EXCAVATED MATERIAL WILL BE PLACED DIRECTLY INTO TRUCKS AND HAULED OFFSITE.
15. RESTORE UNDEVELOPED DISTURBED AREAS ON THE BANK OF THE KALAMA RIVER WITH WEIGHTED JUTE MATTING.
16. SILT BAGS WILL BE USED FOR THE COLLECTION OF WATER FROM THE COFFERDAMS AND DEEP EXCAVATIONS TO PREVENT DISCHARGING HIGH TURBIDITY WATER INTO THE RIVER.

REFERENCE NO. _____

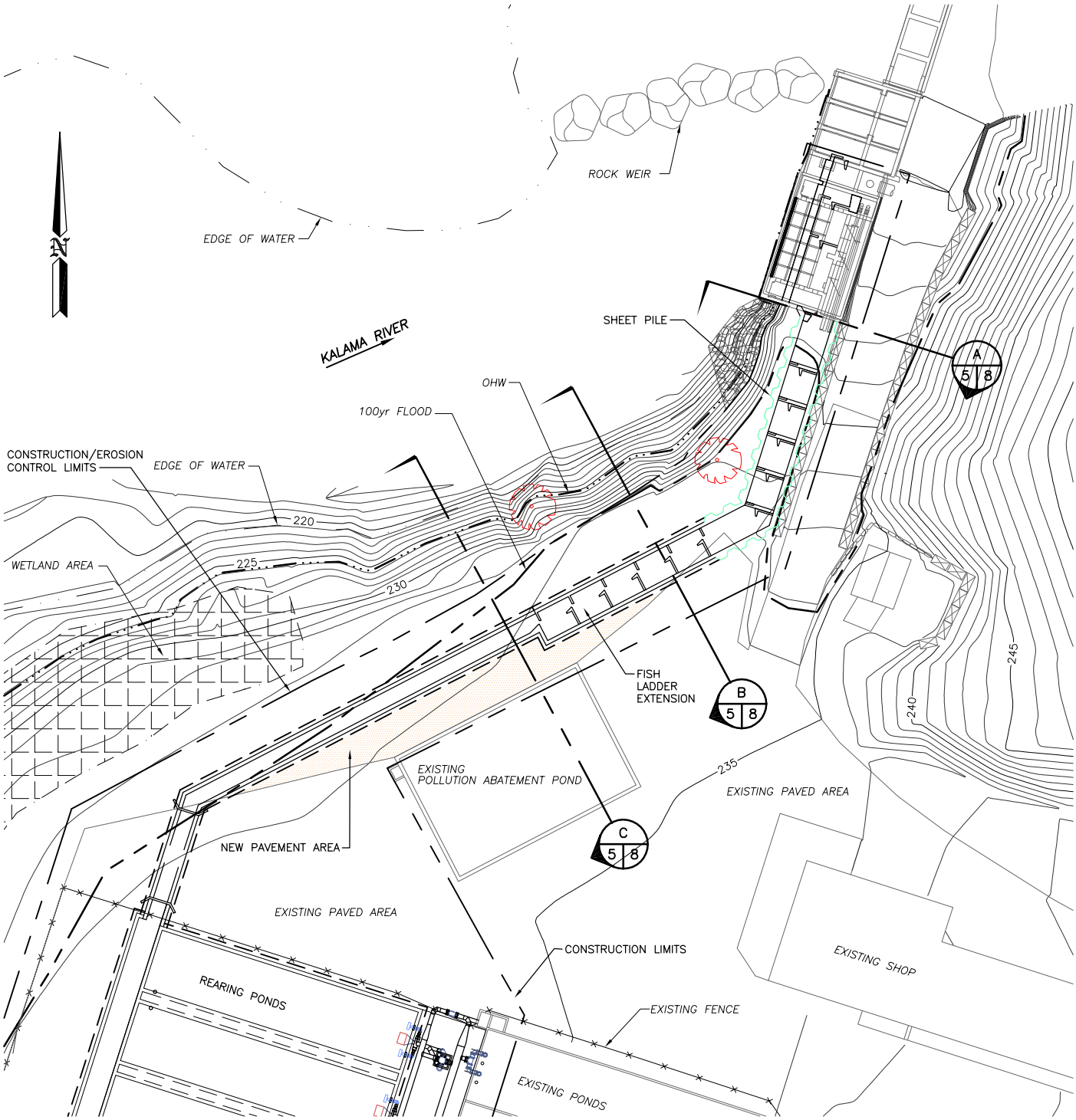
APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
EROSION CONTROL DETAIL
AND NOTES

AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 4 OF 9

ENG. PROJECT NO. CZ:H28:11–2



FISH LADDER

SCALE: 1" = 40'

0 10 20 30 40 60

SCALE: 1" = 40'

REFERENCE NO. _____

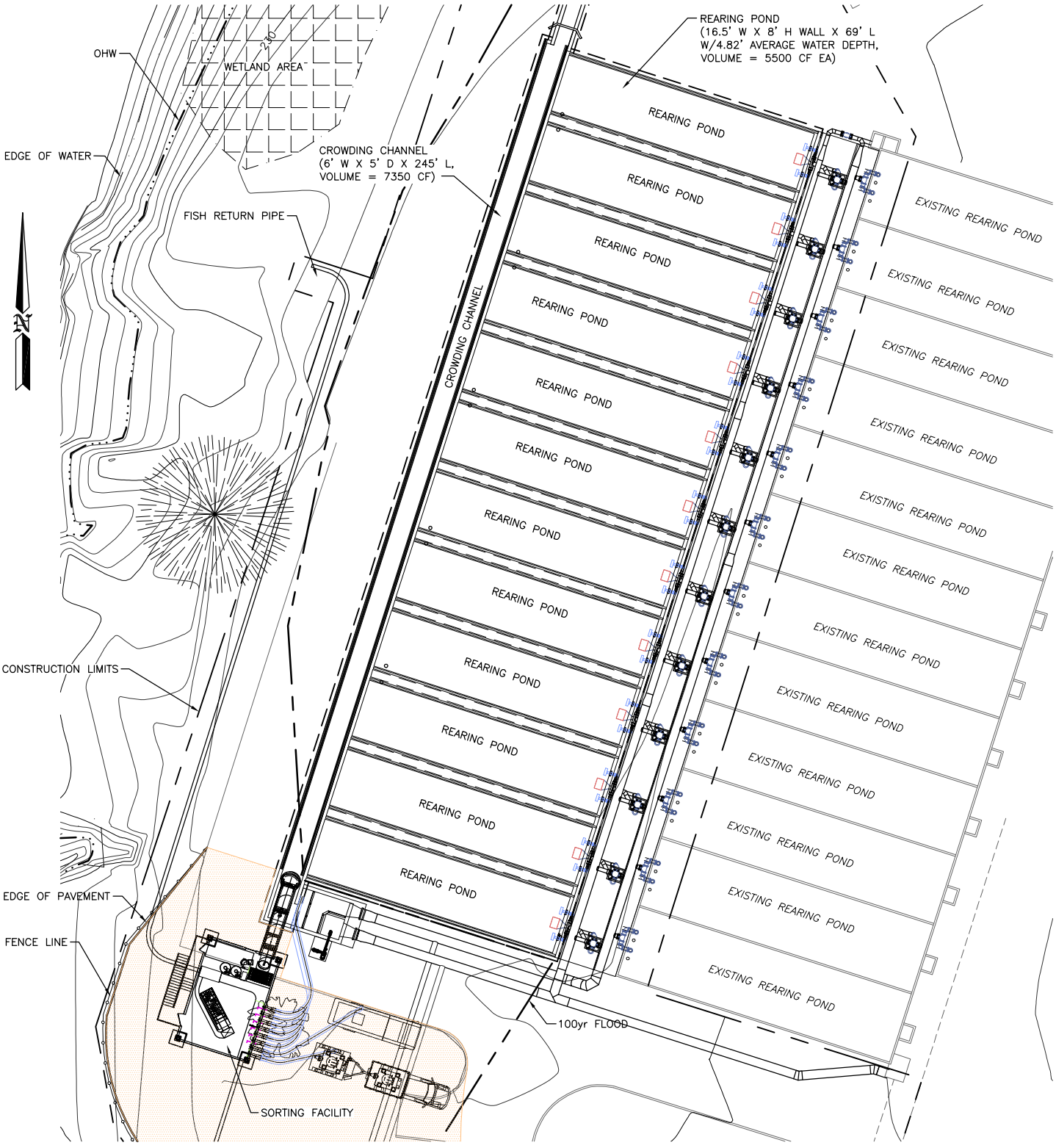
APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
FISH LADDER
PLAN

AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 5 OF 9

ENG. PROJECT NO. CZ:H28:11–2



0 20 40
10 30 60
SCALE: 1" = 40'

REARING PONDS PLAN

SCALE: 1" = 40'

NOTE:
STRUCTURE DIMENSIONS
CROWDING CHANNEL (6'W x 5'D x 245'L)
REARING PONDS (16.5'W x 8'H WALL x 69'L)

REFERENCE NO. _____

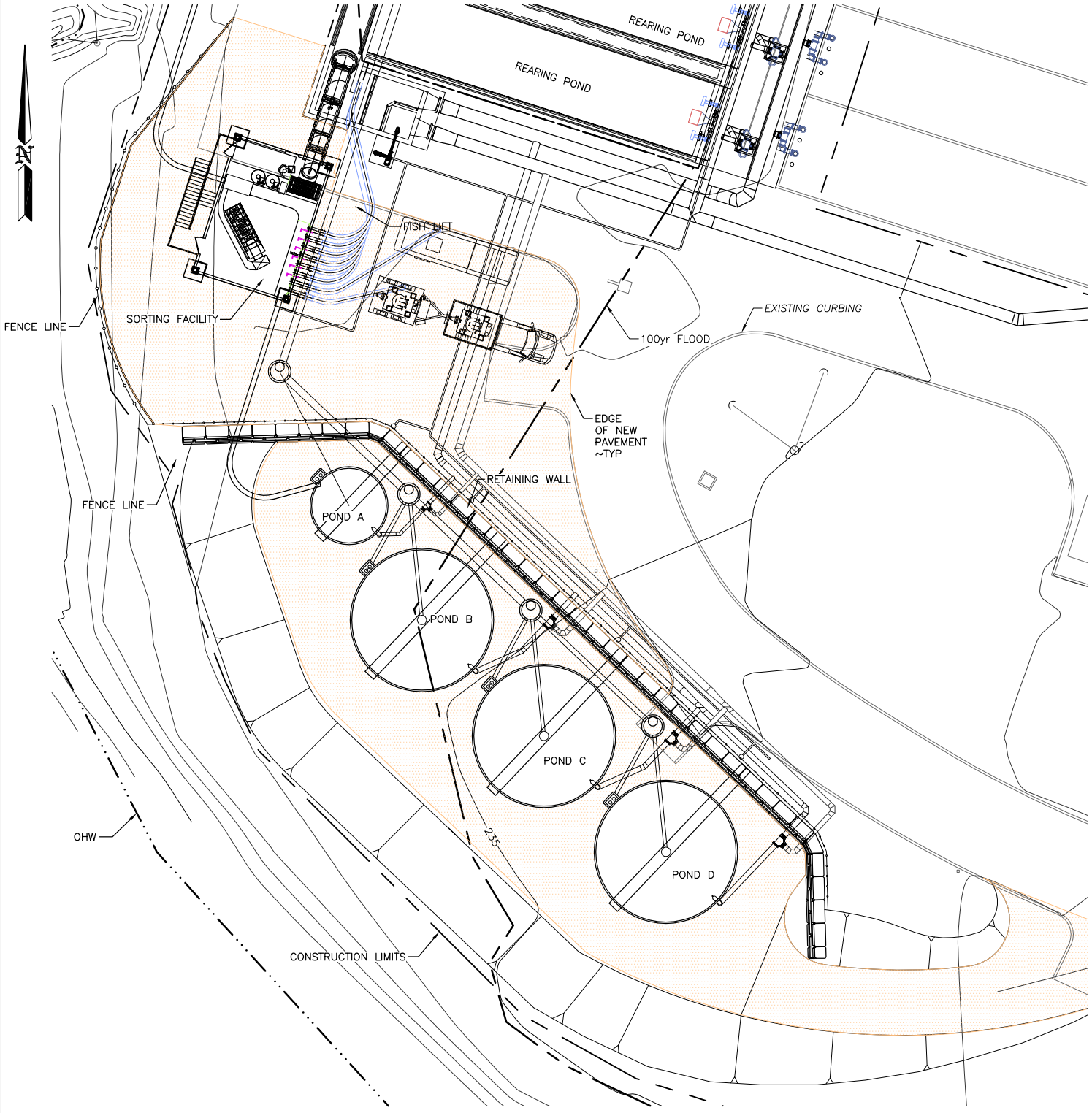
APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
REARING POND
PLAN

AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 6 OF 9

ENG. PROJECT NO. CZ:H28:11-2



0 10 20 30
5 15 25 45
SCALE: 1" = 30'

HOLDING POND PLAN

SCALE: 1" = 30'

NOTE:
HOLDING POND DIMENSIONS
POND A – 16' DIAMETER
POND B – 30' DIAMETER
POND C – 30' DIAMETER
POND D – 30' DIAMETER

REFERENCE NO. _____

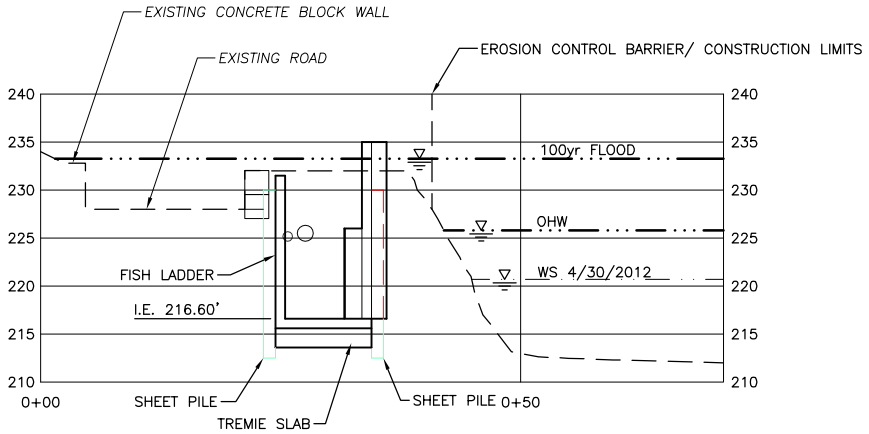
APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
HOLDING PONDS
PLAN

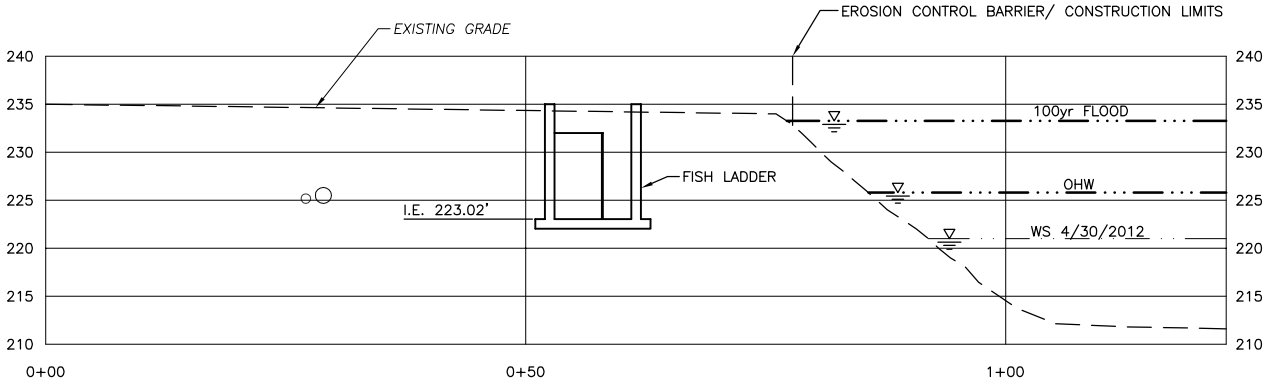
AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 7 OF 9

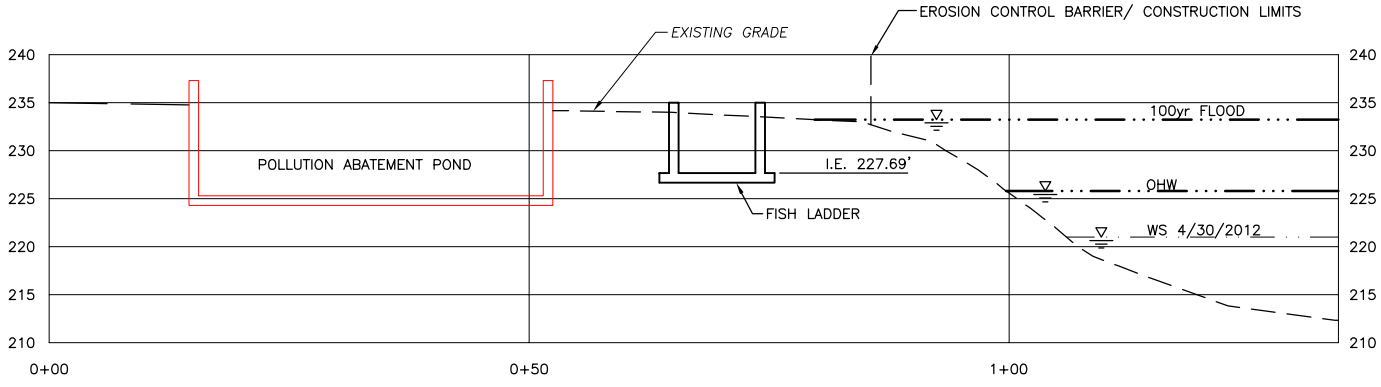
ENG. PROJECT NO. CZ:H28:11–2



SECTION A 5 8
SCALE: 1" = 20'



SECTION B 5 8
SCALE: 1" = 20'



SECTION C 5 8
SCALE: 1" = 20'

REFERENCE NO. _____

APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
FISH LADDER
SECTIONS

AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 8 OF 9

ENG. PROJECT NO. CZ:H28:11–2

CUT AND FILL DATA

SITE TOTALS	SF BELOW OHW	CY BELOW OHW	SF ABOVE OHW	CY ABOVE OHW	TOTAL CY
REARING PONDS					
SOIL EXCAVATION			12,555	2,485.78	
CONCRETE DEMOLITION			16,532	594.57	3,080.35 (CUT)
BACKFILL			8,918	1,778.96	
CONCRETE FILL			20,169	978.73	2,757.69 (FILL)
DISTURBED AREA			29,087		
FISH LADDER					
SOIL EXCAVATION			6,643.52	1,849.17	1,849.17 (CUT)
BACKFILL			4,503.75	903.55	
CONCRETE FILL	587.92	225.71	2,139.82	442.90	1,572.15 (FILL)
DISTURBED AREA			6,643.52		
SORTING FACILITY & LOADING CHANNEL					
SOIL EXCAVATION			2,194.22	273.07	273.07 (CUT)
BACKFILL			1,294	185.67	235.74 (FILL)
CONCRETE FILL			900.22	50.07	
DISTURBED AREA			2,194.22		
CIRCULAR PONDS					
SOIL EXCAVATION			14,570.70	4,465.48	4,465.48 (CUT)
BACKFILL			10,642.10	2,066.94	
CONCRETE FILL			532.71	142.73	2,209.66 (FILL) SEE NOTE 1
DISTURBED AREA			14,570.70		
PAVED AREA			**SF**	**CY**	SEE NOTE 2
EXISTING PAVED AREA (WITHIN CONSTRUCTION LIMITS)			28,872		
NEW PAVEMENT					
FISH LADDER			1,086	13.41	
SORTING FACILITY			5,546	68.47	
CIRCULAR POND			8,008	98.86	
EXISTING TO BE REPLACED			14,974	184.86	
TOTAL IMPERVIOUS			**29,614**		
NET CHANGE IN IMPERVIOUS			**−742**		

NOTES:

1) CONCRETE WALL INCLUDES BLOCK WALL AND MANHOLES

2) CY OF NEW PAVEMENT IS BASED ON 4" THICKNESS

REFERENCE NO. _____

APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

KALAMA FALLS HATCHERY
CUT AND FILL DATA

AT: KALAMA , WASHINGTON

DATE: 10/1/2012 SHEET 9 OF 9

ENG. PROJECT NO. CZ:H28:11−2